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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,203	07/28/2003	Jurgis Astrauskas	1007-0565	6105

7590 01/25/2007

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EXAMINER	
TRAN, DZUNG D	
ART UNIT	**PAPER NUMBER**
2613	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/628,203	ASTRAUSKAS, JURGIS	
	Examiner	Art Unit	
	Dzung D. Tran	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merkler et al. U.S. Patent no. 5,442,344 in view of Connors US patent no. 6,338,680.

Regarding claims 1 and 8, Merkler discloses in Figure 4, a method/apparatus for optical communication with a device external to the probe, the probe comprising:

an optical receiver 42 for receiving a light signal from an external device and generating a corresponding data signal (col. 3, line 54) and a micro processor 34 connected to probe optical receiver 42.

Merkle does not specifically disclose the connector that connect the a micro processor 34 and probe optical receiver 42 is the RS-232 converter for converting a first voltage signal from a diagnostic tool (i.e., a micro processor 34) coupled to the optical receiver to a second voltage signal. Connors discloses in Figure 2, a RS-232 converter 28 for converting a first voltage signal from a diagnostic tool (i.e., a micro-processor 20) coupled to the optical receiver (i.e., receiver of computer 14) to a second voltage signal (Col. 5, line 66 to Col. 6, line 9). At the time of the invention was made,

it would have been obvious to an ordinary skill in the art to include the RS-232 taught by Connors in the apparatus of Merkle. One of ordinary skill in the art would have been motivated to do that in order to provide the suitable voltage for the probe apparatus.

Regarding claims 2 and 9, Connors discloses wherein the first voltage signal is received from a power supply of the micro-processor 20 and the voltage converter is an RS-232 voltage converter (col. 6, lines 2-9).

Regarding claims 3 and 10, Connors discloses the first voltage signal is comprised of a +5V reference and a ground reference and the voltage converter generates a -12V reference from the first voltage signal (Col. 5, line 66 to Col. 6, line 9).

Regarding claims 4 and 11, Examiner take an official notice that optical receiver is a phototransistor is well known in the art (e.g., see Meyer US Patent no. 5,933,812).

Regarding claims 5-7 and 12-14, Connors discloses the second voltage signal is a negative potential reference signal (Col. 5, line 66 to Col. 6, line 9).

Regarding claims 15 and 20, the combination of Merkle and Connors discloses a diagnostic system that communicates with an appliance through a low intensity optical interface comprising:

a diagnostic tool (e.g., micro-processor 20) including a communication interface; and

a communication probe including a voltage converter 28 (RS-232 voltage converter; col. 6, lines 2-9) coupled to the communication interface of the diagnostic

tool through an electrical cable, the voltage converter for converting a first voltage signal to a second voltage signal, the communication probe also including an optical receiver 42 of Figure 4 of Merkle coupled to the voltage converter so that the second voltage signal operates the optical receiver in a high speed mode.

Regarding claims 16 and 17, Connors discloses in Figure 1, the diagnostic tool is a handheld computer 14 and a personal digital assistant.

Regarding claim 18, Connors discloses wherein the communication interface is coupled to the power supply of the diagnostic tool (see Figure 4 of Connors).

Regarding claim 19, Connors discloses the second voltage signal is a negative potential reference signal (Col. 5, line 66 to Col. 6, line 9).

Response to Argument

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran
01/16/2007

Dzung Tran

DZUNG TRAN
PRIMARY PATENT EXAMINER